BM Do

FIS920010024US1

Application for United States Patent

## Declaration and Power of Attorney

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled <u>A METHOD TO INCREASE CARBON AND BORON DOPING CONCENTRATION IN SI AND SIGE FILMS</u>

the specification of which:

| (check | ;;   | is attached hercto     |                 |
|--------|------|------------------------|-----------------|
| one)   | [23] | was filed on 4/30/01   | as              |
|        | •    | Application Serial No. | 09/843,783      |
|        |      | and was amended on _   | (if applicable) |

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).\*

I hereby claim foreign priority benefits under Title 35. United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

| Prior Forcign Application(s) |           |                        |     | in Claimed |
|------------------------------|-----------|------------------------|-----|------------|
| None<br>(Numbur)             | (Country) | (Day/Month/Year Filed) | yes | no         |
| (Number)                     | (Country) | (Day/Month/Year Filed) | yes | no         |

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

| None<br>(Application Serial No.) | (Filing Date) | (Status: patented, pending, abandoned) |
|----------------------------------|---------------|--|
|----------------------------------|---------------|--|

Power of Attorney: As a named inventor, I hereby appoint Joseph P. Abate, Reg. No. 30,238, Jay H. Anderson, Reg. No. 38,371, Ita D. Blecker, Reg. No. 29,894, Steven Capella, Reg. No. 33,086, T. Rao Coca, Reg. No. 29,784, Harold Huberfeld, Reg. No. 26,665, Todd M. C. Li, Reg. No. 45,554, Susan Murray, Reg. No. 38,252, Daryl K. Neff, Reg. No. 38,253, Eric W. Petraske, Reg. No. 28,459, Marc D. Schechter, Reg. No. 28,989, H. Daniel Schnurmann, Reg. No. 35,791, William P. Skladony, Reg. No. 33,787, Bernard Tiegerman, Reg. No. 29,707, Tiffany Townsend, Reg. No. 43,199, Christopher A. Hughes, Reg. No. 26,914, Edward A. Pennington, Reg. No. 32,588, John E. Hoel, Reg. No. 26,279, Joseph C. Redmond, Jr., Reg. No 18,753, C. Lamont Whitham, Reg. No. 22,424, Marshall M. Curtis, Reg. No. 33,138, and Michael E. Whitham, Reg. No. 32,635, as autorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. All correspondence should be directed to McGuireWoods LLP, 1750 Tysons Boulevard, Suite 1800, Tysons Corner, McLean, Virginia 22102-3915. Telephone calls should be directed to McGuireWoods, LLP at (703) 391-2510.

### TO 8532236

# Application for United States Patent Declaration and Power of Attorney

SEP 1 , 2001 SULLED

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled A METHOD TO INCREASE CARBON AND BORON DOPING CONCENTRATION IN SI AND SIGE FILMS the specification of which:

| (check | n        | is attached hereto                 |
|--------|----------|------------------------------------|
| one)   | <u> </u> | was filed on 4/30/01 as            |
| •      |          | Application Serial No. 09/843,783  |
|        |          | and was amended on (if applicable) |

I hereby state that I have reviewed and understand the coments of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).\*

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

| Prior Foreign Application(s) |           |                        |     | ty Claimed |
|------------------------------|-----------|------------------------|-----|------------|
| None<br>(Number)             | (Country) | (Day/Month/Year Filed) | yes | no         |
| (Number)                     | (Country) | (Day/Month/Year Filed) | yes | no         |

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s). listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

| None                     | (Filing Date) | (Status: patented, pending, abandoned) |
|--------------------------|---------------|--|
| (Application Serial No.) | (1 mmg raw)   | (arama Yanama A Lama On and            |

Power of Attorney: As a named inventor, I hereby appoint loseph P. Abate, Reg. No. 30,238, Jay H. Anderson, Reg. No. 38,371, Ira D. Blecker, Reg. No. 29,894, Steven Capella, Reg. No. 33,086, T. Rao Coca, Reg. No. 29,784, Harold Huberfeld, Reg. No. 26,665, Todd M. C. Li, Reg. No. 45,554, Susan Murray, Reg. No. 38,252, Daryl K. Neff, Reg. No. 38,253, Eric W. Petraske, Reg. No. 28,459, Marc D. Schechter, Reg. No. 28,989, H. Daniel Schmurmann, Reg. No. 35,791, William P. Skladony, Reg. No. 33,787, Bernard Tiegerman, Reg. No. 29,707, Tiffany Townsend, Reg. No. 43,199, Christopher A. Hughes, Reg. No. 26,914, Edward A. Pernington, Reg. No. 32,588, John E. Hoel, Reg. No. 26,279, Joseph C. Redmond, Jr., Reg. No 18,753, C. Lamont Whitham, Reg. No. 22,424, Marshall M. Curtis, Reg. N. 33,138, and Michael E. Whitham, Reg. N. 32,635, as attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. All correspondence should be directed t. McGuire Woods LLP, 1750 Tysons Boulevard, Suite 1800, Tysons Corner, McLean, Virginia 22102-3915. Telephone calls should be directed to McGuire Woods, LLP at (703) 391-2510.



Declaration and Power of Attorney

As a below named inventor, I hereby declare that:

is attached hereto

[]

(check one)

My residence, post office address and citizenship are as stated below next to my name;

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled <u>A METHOD TO INCREASE CARBON AND BORON DOPING CONCENTRATION IN Si AND SiGe FILMS</u> the specification of which:

| [23]   | was filed on 4/30/01 Application Serial No. and was amended on _  | 09/843,783  | e)  |   |                       |
|--|---|---|---|---|-----------------------|
|  |   | ved and understand the  | contents of the above identif   | ied specifica                                 | tion,                 |
|  | owledge the duty to discle<br>h Title 37, Code of Feder   |   | is material to the examinatio<br>a).*   | n of this app                                 | lication in           |
| application(s) f                                       | or patent or inventor's ce  | rtificate listed below ar   | United States Code, §119 of and have also identified below at of the application on whic  | any foreign                                   | application           |
| Prior Foreign A  | Application(s)  |   |   | Priorit                                       | y Claimed             |
| None<br>(Number)                                       | (Country)   | (   | Day/Month/Year Filed)   | yes   | no                    |
| (Number)   | (Country)   | (   | Day/Month/Year Filed)   | yes   | no                    |
| listed below and<br>United States as<br>acknowledge th | d, insofar as the subject n<br>pplication in the manner<br>he duty to disclose materia<br>occurred between the fili | natter of each of the cla<br>provided by the first pa<br>al information as define | s Code, § 120 of any United tims of this application is not aragraph of Title 35, United 8 and in Title 37, Code of Federaplication and the national or | disclosed in<br>States Code,<br>al Regulation | the prior § 112, Ins, |
| None<br>(Application Se                                | <br>erial No.)  | (Filing Date)   | (Status: patented, per  | nding, aband                                  | loned)                |
|  |   |   | point Joseph P. Abate, Reg. No. 33 0  |   |                       |

Power of Attorney: As a named inventor, I hereby appoint Joseph P. Abate, Reg. No. 30,238, Jay H. Anderson, Reg. No. 38,371, Ira D. Blecker, Reg. No. 29,894, Steven Capella, Reg. No. 33,086, T. Rao Coca, Reg. No. 29,784, Harold Huberfeld, Reg. No. 26,665, Todd M. C. Li, Reg. No. 45,554, Susan Murray, Reg. No. 38,252, Daryl K. Neff, Reg. No. 38,253, Eric W. Petraske, Reg. No. 28,459, Marc D. Schechter, Reg. No. 28,989, H. Daniel Schnurmann, Reg. No. 35,791, William P. Skladony, Reg. No. 33,787, Bernard Tiegerman, Reg. No. 29,707, Tiffany Townsend, Reg. No. 43,199, Christopher A. Hughes, Reg. No. 26,914, Edward A. Pennington, Reg. No. 32,588, John E. Hoel, Reg. No. 26,279, Joseph C. Redmond, Jr., Reg. No 18,753, C. Lamont Whitham, Reg. No. 22,424, Marshall M. Curtis, Reg. No. 33,138, and Michael E. Whitham, Reg. No. 32,635, as attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. All correspondence should be directed to McGuireWoods LLP, 1750 Tysons Boulevard, Suite 1800, Tysons Corner, McLean, Virginia 22102-3915. Telephone calls should be directed to McGuireWoods, LLP at (703) 391-2510.

Application for United States Patent

## Declaration and Power of Attorney

As a belomanded inventor, I hereby declare that:

is attached hereto

O

(check one)

My residence, post office address and citizenship are as stated below next to my name;

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled <u>A METHOD TO INCREASE CARBON AND BORON DOPING CONCENTRATION IN Si AND SiGe FILMS</u> the specification of which:

| X  | was filed on 4/30/03<br>Application Serial No<br>and was amended on                     | o. <u>09/843,78</u> 3   | ble)   |  |                    |
|--|---|---|--|--|--------------------|
|  | by state that I have revie<br>laims, as amended by an                                   |   | ne contents of the above identification above.   | fied specific                                | ation,             |
|  | nowledge the duty to disc<br>h Title 37, Code of Fede                                   |   | h is material to the examination (a).*   | on of this ap                                | plication in       |
| application(s) f   | for patent or inventor's co   | ertificate listed below a   | 5, United States Code, §119 of<br>and have also identified below<br>that of the application on whic  | any foreign                                  | application        |
| Prior Foreign A  | Application(s)  |   |  | Priori                                       | ty Claimed         |
| None   |   | _   |  |  | _                  |
| (Number)   | (Country)   |   | (Day/Month/Year Filed)   | yes  | no                 |
| Number)  | (Country)   | _   | (Day/Month/Year Filed)   | yes  | no                 |
| isted below and<br>United States and<br>acknowledge th<br>§1.56(a) which | d, insofar as the subject in<br>pplication in the manner<br>the duty to disclose materi | matter of each of the c<br>provided by the first part in the provided by the first part in the provided by the control of the provided by the pro | tes Code, § 120 of any United laims of this application is not paragraph of Title 35, United State in Title 37, Code of Federapplication and the national or | disclosed in<br>States Code,<br>al Regulatio | the prior § 112, I |
| None   |   |   |  |  |                    |
|  |   |   |  |  | doned)             |

Power of Attorney: As a named inventor, I hereby appoint Joseph P. Abate, Reg. No. 30,238, Jay H. Anderson, Reg. No. 38,371, Ira D. Blecker, Reg. No. 29,894, Steven Capella, Reg. No. 33,086, T. Rao Coca, Reg. No. 29,784, Harold Huberfeld, Reg. No. 26,665, Todd M. C. Li, Reg. No. 45,554, Susan Murray, Reg. No. 38,252, Daryl K. Neff, Reg. No. 38,253, Eric W. Petraske, Reg. No. 28,459, Marc D. Schechter, Reg. No. 28,989, H. Daniel Schnurmann, Reg. No. 35,791, William P. Skladony, Reg. No. 33,787, Bernard Tiegerman, Reg. No. 29,707, Tiffany Townsend, Reg. No. 43,199, Christopher A. Hughes, Reg. No. 26,914, Edward A. Pennington, Reg. No. 32,588, John E. Hoel, Reg. No. 26,279, Joseph C. Redmond, Jr., Reg. No 18,753, C. Lamont Whitham, Reg. No. 22,424, Marshall M. Curtis, Reg. No. 33,138, and Michael E. Whitham, Reg. No. 32,635, as attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. All correspondence should be directed to McGuireWoods LLP, 1750 Tysons Boulevard, Suite 1800, Tysons Corner, McLean, Virginia 22102-3915. Telephone calls should be directed to McGuireWoods, LLP at (703) 391-2510.

I hereby declare that all state and made herein of my own knowledge are tracend that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FIS920010024US1

| (1)        | Inventor:               | Basanth Jagannathan                                      | -H.          |
|------------|-------------------------|--|--------------|
|            | Signature:              | Basantz. Jagannathan                                     | Ang 16, 2001 |
|            | Residence:              | 81 Judith Drive, Stormville, New York 12582              | Date         |
|            | Citizenship:            | India  |              |
|            | Post Office A           | Address: Same As Residence                               |              |
| (2)        | Inventor:<br>Signature: | Jack O. Chu  |              |
|            | Residence:              | 44 Shelbourne Lane, Manhasset, New York 11040            | Date         |
|            | Citizenship:            | US .   |              |
|            | Post Office A           | ddress: Same As Residence                                | •            |
| (3)        | Inventor:<br>Signature: | Ryan W. Wuthrich   |              |
|            | Residence:              | 161 Austin Drive, #67, Burlington, Vermont 05401         | Date         |
|            | Citizenship:            | US   |              |
|            | Post Office A           | ddress: Same As Residence                                |              |
| <b>1</b> ) | Inventor:               | Byeongju Park  |              |
|            | Signature:              |  |              |
|            | Residence:              | 1668 Route 9, Apt.,#1G, Wappingers Falls, New York 12590 | Date         |
|            | Citizenship:            | Republic of Korea  |              |
|            | Post Office A           | ddress: Same As Residence                                |              |

#### Title 37, Code of Federal Regulations, §1.56(a):

- (a) A duty of candor and good faith toward the Patent and Trademark Office rests on the inventor, on each attorney or agent who prepares or prosecutes the application and on every other individual who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application. All such individuals have a duty to disclose to the Office information they are aware of which is material to the examination of the application. Such information is material where there is substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent. The duty is commensurate with the degree of involvement in the preparation or prosecution of the application.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and (1) it establishes, by itself or in combination with other information, a prima facie case of unpatentability; or (2) it refutes, or is inconsistent with, a position the applicant takes in: (i) opposing an argument of unpatentability relied on by the Office, or (ii) asserting an argument of patentability.

P.03

IBM Docaet:

PIS920010024US1

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

| (1) | Inventor:               | Basanth Jagannathan                                      |                  |
|-----|-------------------------|--|------------------|
|     | Signature:              |  | Date             |
|     | Residence:              | 81 Judith Drive, Stormville, New York 12582              |                  |
|     | Citizenship:            | India  |                  |
|     | Post Office A           | Address: Samo As Residence                               |                  |
| (2) | Inventor:<br>Signature: | Jack O. Chu  | 9-6-2001<br>Date |
|     | Residence:              | 44 Shelbourne Lane, Manhasset, New York 11040            | 2                |
|     | Citizenship:            | US   |                  |
|     | Post Office A           | ddress: Same As Residence                                |                  |
| (3) | Inventor:<br>Signatue:  | Ryan W. Wuthrich   |                  |
|     | Residence:              | 161 Austin Drive, #67, Burlington, Vermont 05401         | Date             |
|     | Citizenship:            | US   |                  |
|     | Post Office A           | ddress: Same As Residence                                |                  |
| 4)  | Inventor:               | Bycongju Park  |                  |
|     | Signature:              |  | Date             |
|     | Residence:              | 1668 Route 9, Apt.,#1G, Wappingers Falls, New York 12590 | Date             |
|     | Citizenship:            | Republic of Korea  |                  |
|     |                         |  |                  |

Title 37, Code of Federal Regulations, §1.56(a):

Post Office Address: Same As Residence

- (a) A duty of candor and good faith toward the Patent and Trademark Office rests on the inventor, on each attorney or agent who prepares or prosecutes the application and on every other individual who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application. All such individuals have a duty to disclose to the Office information they are aware of which is material to the examination of the application. Such information is material where there is substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent. The duty is commensurate with the degree of involvement in the preparation or prosecution of the application.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and (1) it establishes, by itself or in combination with other information, a prima facie case of unpatentability; or (2) it refutes, or is inconsistent with, a position the applicant takes in: (i) opposing an argument of unpatentability relied on by the Office, or (ii) asserting an argument of patentability.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

RM IBM BTU-MICRO EL

| (1) | Inventor:               | Basanth Jagannathan                                      |          |
|-----|-------------------------|--|----------|
|     | Signature:              |  | Date     |
|     | Residence:              | 81 Judith Drive, Stormville, New York 12582              |          |
|     | Citizenship:            | · India  |          |
|     | Post Office A           | address: Same As Residence                               |          |
| (2) | Inventor:<br>Signature: | Jack O. Chra   | Dete     |
|     | Residence:              | 44 Sheibourne Lane, Manhasset, New York 11040            | Dak      |
|     | Citizenship:            | US   |          |
|     | Post Office A           | ddress; Same As Residence                                |          |
| (3) | Inventor:<br>Signature: | Ryan W. Wurderich  | 8/9/2001 |
|     | Residence:              | 161 Austin Drive, #67, Burlington, Vermont 05401         | LAR      |
|     | Citizenship:            | US   |          |
|     | Post Office A           | address: Same As Residence                               |          |
| 4)  | Inventor.               | Byeongju Park  |          |
|     | Signature:              |  | Date     |
|     | Residence:              | 1668 Route 9, Apt.,#1G, Wappingers Falls, New York 12590 | <b></b>  |
|     | Citizenship:            | Republic of Korea  |          |
|     | Post Office A           | address: Same As Residence                               |          |

Title 37, Code of Federal Regulations, §1.56(a):

(a) A duty of candor and good faith toward the Patent and Trademark Office rests on the inventor, on each attorney or agent who prepares or prosecutes the application and on every other individual who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application. All such individuals have a duty to disclose to the Office information they are aware of which is material to the examination of the application. Such information is material where there is substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent. The duty is commensurate with the degree of involvement in the preparation or prosecution of the application.

(b) Under this section, information is material to patentability when it is not cumulative t information already of record or being made of record in the application, and (1) it establishes, by itself or in combination with other information, a prima facie case of unpatentability, or (2) it refutes, or is inconsistent with, a position the applicant takes in: (i) opposing an argument of unpatentability relied on by the Office, or (ii) asserting an argument of patentability.

I hereby declare that all statemed amade herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

| (1) | Inventor:               | Basanth Jagannathan                                      |       |
|-----|-------------------------|--|-------|
|     | Signature:              |  | Date  |
|     | Residence:              | 81 Judith Drive, Stormville, New York 12582              | Daio  |
|     | Citizenship:            | India  |       |
|     | Post Office A           | ddress: Same As Residence                                |       |
| (2) | Inventor:<br>Signature: | Jack O. Chu  |       |
|     | Residence:              | 44 Shelbourne Lane, Manhasset, New York 11040            | Date  |
|     | Citizenship:            | US   |       |
|     | Post Office A           | ddress: Same As Residence                                |       |
| (3) | Inventor:<br>Signature: | Ryan W. Wuthrich   | Date  |
|     | Residence:              | 161 Austin Drive, #67, Burlington, Vermont 05401         | Date  |
|     | Citizenship:            | US   |       |
|     | Post Office A           | ddress: Same As Residence                                |       |
| 4)  | Inventor:               | Byeongju Park  | 7/201 |
|     | Signature:              | (Sylongy Old 199   | Date  |
|     | Residence:              | 1668 Route 9, Apt.,#1G, Wappingers Falls, New York 12590 | 24.0  |
|     | Citizenship:            | Republic of Korea  |       |
|     |                         |  |       |

Title 37, Code of Federal Regulations, §1.56(a):

Post Office Address: Same As Residence

- (a) A duty of candor and good faith toward the Patent and Trademark Office rests on the inventor, on each attorney or agent who prepares or prosecutes the application and on every other individual who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application. All such individuals have a duty to disclose to the Office information they are aware of which is material to the examination of the application. Such information is material where there is substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent. The duty is commensurate with the degree of involvement in the preparation or prosecution of the application.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and (1) it establishes, by itself or in combination with other information, a prima facie case of unpatentability; or (2) it refutes, or is inconsistent with, a position the applicant takes in: (i) opposing an argument of unpatentability relied on by the Office, or (ii) asserting an argument of patentability.